

# SARS-CoV-2 (2019-nCoV) 3CLpro / 3C-like protease-His Recombinant Protein

Catalog Number: 40594-V07B



Sino Biological  
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## General Information

### Gene Name Synonym:

CoV 3CLpro, 3C-like protease

### Protein Construction:

A DNA sequence encoding the SARS-CoV-2 (2019-nCoV) 3CL Protease (YP\_009725295.1) (Ser3264-Gln3569) was expressed with a N-terminal polyhistidine tagged.

**Source:** 2019-nCoV

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE.

### Bio-activity:

Measured by its ability to cleave a peptide substrate, Dabcyl-KTSAVLQSGFRKME-Edans. The specific activity is >5 pmols/min/μg

### Endotoxin:

< 1.0 EU per μg protein as determined by the LAL method.

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant SARS-CoV-2 (2019-nCoV) 3CL Protease consists of 332 amino acids and predicts a molecular mass of 37.12 kDa.

### Formulation:

Lyophilized from sterile 20mM Tris, pH8.0, 300mM NaCl, 10% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

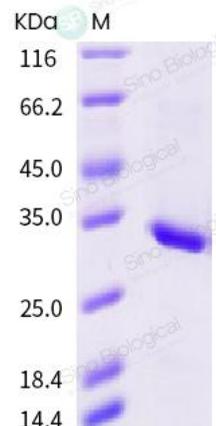
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

3C-like protease (3CLpro) is the main protease of Humann Coronavirus. 3C-like protease (3CLpro) is a key enzyme, as it cleaves several sites to produce non-structural proteins that are essential for genome replication and Coronavirus virion production, such as an RNA-dependent RNA polymerase, a helicase, ribonucleases and 3CLpro itself, from two types of polyproteins (pp1a and pp1ab). SARS-CoV 3CLpro exists as a homodimer and each protomer has an active site.

## References

1. Tomonari Muramatsu, et al. Autoprocessing mechanism of severe acute respiratory syndrome coronavirus 3C-like protease (SARS-CoV 3CLpro) from its polyproteins. FEBS Journal. 2013
2. Ziebuhr J, Molecular biology of severe acute respiratory syndrome coronavirus. Curr Opin Microbiol. 2004
3. Yang H, et al. The crystal structures of severe acute respiratory syndrome virus main protease and its complex with an inhibitor. Proc Natl Acad Sci USA. 2003